THE ANGLO-AMERICAN TELEGRAPH COMPANY.

Forwarding Form. **VALENTIA.** Date _____ 187__

	Clerks' Names.		*No.* _____
Received from T. S. _____ __. m.	Receiver _____	On No. _____	Remarks.
Corrected _____ __. m.	Writer _____	_____	
Forwarded to H. C. / on _____ Cable } _____ __. m.	Sender _____	Coll. checked _____	

Prefix _____	Code Time _____	No. of Words _____

Words.

TO { }

Valentia, Saturday
Aug 17. 1878.

Dear Preece – Your telegram saying "I hear it is too late, but send it along by all means" recd – After receiving your first message yesterday I examined the four Cylinder instrument I had made & found that it could not be sent by rail & be in good condition on arrival – in fact it was very frail & rough & so excessively sensitive that the least breath of air or scratch on the Table or footfall on the floor would move the index (needle or "Spot") in fact short ~~was so~~ could not be used at all

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Corrected _____ ___. m.	Writer _____	_____	
Forwarded to H. C. / on _____ Cable } _____ ___. m.	Sender _____	Coll. checked _____	

Prefix _____ Code Time _____ No. of Words _____

Words.

TO

except on the marble slab set into the wall - The table upon which my Instruments are placed -

I dont to work however and cobble up another One Cylinder instrument and send it by Mr Johnson One of the Clerks who leaves Line tomorrow Sunday morning. He will leave it at the Westlem (Row Hotel to be called for. Will you kindly send a boy for it. I have had but short time to test it but have tried it & it seems fairly sensitive, probably as much so as could be shown in

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3

	Clerks' Names.		No. _____
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Forwarded to H. C. } _____ ___. m.	Sender _____	Coll. checked _____	
on _____ Cable }			

Prefix _____ Code Time _____ No. of Words _____

Words.

TO

advantage before an audience -
the other instrument with four
tubes would show the weight of the smallest-
bit of floss silk scraped from a piece of silk
covered wire - I am confident it would show
the attraction of the moon upon any substance
placed on the end of the lever, such as a
leaden bullet - but this I have not yet had
an opportunity to try - If it is too late to read
any special paper on it - perhaps you can
mention it in some paper on the progress of
electrical science? If you can mention it,

THE ANGLO-AMERICAN TELEGRAPH COMPANY.

Forwarding Form. **VALENTIA.** Date _____ 187__

4

Clerks' Names.

No. _____

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Corrected _____ __. m.	Writer _____	_____	
Forwarded to H. C. } _____ __. m.	Sender _____	Coll. checked _____	
on _____ Cable }			

Prefix _____ Code Time _____ No. of Words _____

Words.

TO

do do, giving me credit for only so much as you may think due me - Of course I use Clerac's tubes. but apply it to a special purpose - Edison uses the steam + applies it to another purpose - Neither of us has made any discovery, but my application is just as original as his + was besides made in= dependently. That's all that is due to me, or to Edison - Whether my application will be of any practical value in the laboratory or elsewhere others can judge better than I -

The best substance I have yet tried for the tube is the "lead" of a Faber HB pencil finely pulverized

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on _____ Cable }			

Prefix _____	Code Time _____	No. of Words ___ _____

Words. 5

TO

So as to be free from lumps - The resistance of this is very low, while that of powdered Charcoal, or artists' crayons is very high - I put in about the whole of one lead & the resistance is from 50 to 100 according to pressure. I find it more sensitive when the pressure is slight, about that of the lever itself, but I have sometimes found an advantage in putting a slight weight on the lever - I should have been a Card gummed on the end of the lever for a "scale-pan" but it was forgotten till it was boxed - I have put it

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Forwarding Form. **VALENTIA.** Date _____ 187__

6	Clerks' Names.		No. _____
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Corrected _____ ___. m.	Writer _____	_____	
Forwarded to H. C. / on _____ Cable _____ ___. m.	Sender _____	Coll. checked _____	

Prefix _____ Code Time _____ No. of Words _____

Words.

TO { With the carbon in the letter but I fear you letter will be in when you receive it.

To unpack it, take out the brass screw in bottom of the box & the inst. will lift out. I will write you again the middle of next week & before you leave Dublin for Va. I hope to show you a balance for this end of the cable, but the apparatus will not be at H.C. by that time.

My best regards to Mr. & Mrs. Langer, at whose hospitable mansion I "guess" you are staying

Yours truly, J. B. Stearns.

The box is directed

" W. H. Preece Esq
Care T. H. Sanger Esq
Engineer Postal Telegraphs
To be called for. Dublin "

It will be left at the Westland Row Hotel

DSI

Copy of letter from J.B.Stearns to

"W.H.Preece Esq.
Care T.H.Sanger Esq,Engineer Postal Telegraphs
To be called for- It will be left at the Westland Dublin
Row Hotel"

Valentia,Saturday
Aug 17,1878

Dear Preece-

Your telegram saying "I hear it is too late,but send it along by all means" rec'd. After receiving your first message yesterday I examined the four cylinder instrument I had made and found that it could not be sent by rail & be in good condition on arrival--in fact it was very frail & rough ?& so excessively sensitive that the least breath of air or scratch on the table or footfall on the floor would move the index (needle or "spot") & in ~~fact~~ short ~~was so~~ could not be used at all except on the marble slab set into the wall--the table upon which my other instruments are placed.

I went to work however and cobbled up another one cylinder instrument and send it by Mr. Johnson one of the clerks who leaves here tomorrow (Sunday) morning. He will leave it at the Westland Row Hotel to be called for. Will you kindly send a boy for it. I have had but short time to test it but have tried it & it seems fairly sensitive,probably as much so as could be shown to advatage before an audience.

The other instrument with four tubes would show the weight of the smallest bit of floss silk scraped from a piece of silk covered wire. I am confident it would show the attraction of the moon upon any substance placed on the end of the lever,such as a leaden bullet,but this I have not yet had an opportunity to try. If it is too late to read any special paper on it,perhaps you can mention it in some paper on the progress of electrical science? If you can mention it,do so,giving me credit for only so much as you may think due me. Of course I use Clerac's tubes,but apply it to a special purpose. Edison uses the same & applies them to another purpose. Neither of us has made any discovery but my application is just as original as his & was besides made independently. That's all that is due to me,or to Edison. Whether my application will be of any practical value in the laboratory or elsewhere others can judge better than I.

The best substance I have yet tried for the tube is the "lead" of a Faber HB pencil finely pulverized so as to be free from lumps. The resistance of this is very low,while that of powdered charcoal,or artist's crayons is very high. I put in about the whole of one lead & the resistance is from 50 to 100 according to pressure,I find it more sensitive when the pressure is slight,about that of the lever itself,but I have sometimes found an advantage in putting a slight weight on the lever. There should have been a card gummed on the end of the lever for a "scale-pan" but it was forgotten till it was boxed. I have sent it with the carbon in the tube but I fear very little will be in when you receive it.

To unpack it,take out the brass screw in the bottom of the box & the inst. will lift out. I will write you again the middle of next week & before you leave Dublin for Va. I hope to show you a balance for this end of the cable,but the apparatus will not be at H.C. by that time.

My best regards to Mr.& Mrs.Sanger,at whose hospitable mansion I "guess" you are staying.

Yours very truly, J.B.Stearns

STEARNS, J.B.

A. L. S. dated Aug.17, 1878 to W. H. Preece referring to the use of carbon granules in connection with a pressure device

HARVARD UNIVERSITY

CURATOR OF THE COLLECTION OF
HISTORICAL SCIENTIFIC INSTRUMENTS

DAVID P. WHEATLAND
6 DIVINITY AVE.
CAMBRIDGE 38, MASS.

May 2,1950

Dear Bern:

I have recently received from F.T. Heller a letter written on the front side of six telegraph blanks by a J.B. Stearns to W.H.Preece,August 17,1878. This apparently refers to the use of carbon granules in connection with a pressure device.

Up to this time,as you remember,telephones were fairly common,but used carbon rods and various forms of vibrating contacts between solid lumps of carbon. Whether Edison's microphone with the carbon granules was an outcome of Mr. Stearns' idea or vice versa I haven't found out yet. Also in this same year,Hunning,a clergyman in England,made a transmitter similiar to Edison's and so fits into this picture somewhat. I am sending you a copy of the Stearns letter,and returning the original MSS to Mr. Heller.

Although I have many books on the "telephone",I feel it will be impossible for me to continue,as this field is much too large for me to undertake.

I am looking forward to being in New York again and having you and Mr. Horblit together for lunch.

Sincerely,

DPW:awp